



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,316	11/14/2000	Lars-Olof Ohberg	1878/00037	4171

7590 04/14/2004

EDWARD A. PENNINGTON
SWIDLER BERLIN SHEREFF FRIEDMAN, LLP
3000 K STREET
SUITE 300
WASHINGTON, DC 20007

EXAMINER

SAADAT, CAMERON

ART UNIT	PAPER NUMBER
----------	--------------

3713

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,316

Applicant(s)

OHBERG ET AL.

Examiner

Cameron Saadat

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/24/2004 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Pace (Effective Calculations in Captive-Carry HIL Missile Simulator Experiments).

Regarding claim 18, Pace discloses a method for simulating a missile by means of a missile simulator during testing of an aircraft which includes a weapon system for controlling missiles with which the aircraft may be equipped, the method comprising: generating a target seeker command position operative to command a target seeker of a of a missile to adopt a predetermined position (P. 124, ¶ 2); simulating the behavior of the missile in a computer model to generate an actual value signal adapted to the weapon systems; generating a trouble signal from a deviation between the target seeker command position and the actual value signal; using the trouble signal as a control signal for the target seeker; and repeating these steps (P. 125-129; Figs. 3, 6).

Regarding claim 19, Pace discloses a method wherein the trouble signal is measured continuously and wherein the error in amplitude and phase angle comprises a difference between a vector corresponding to the target seeker command position and a vector corresponding to the target seeker actual position, are determined and sent to the computer model in the missile simulator (See P. 125-129; Figs. 3, 6).

Regarding claim 20, Pace discloses a method wherein for each measured trouble signal the computer model calculates a corresponding actual value signal (See Fig. 3).

Regarding claim 21, Pace discloses a method wherein for each trouble signal the computer model determines a new vector including an amplitude and a phase angle of the new target seeker command position (see Fig. 3; p. 131).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pace (Effective Calculations in Captive-Carry HIL Missile Simulator Experiments) in view of Phillips.

Regarding claim 22, Pace discloses all of the claimed subject matter with the exception of explicitly disclosing that the actual value signal is reproduced from a *time-discrete vector*. However, Phillips discloses a method of modeling a feedback control system comprising time discrete signals (See P. 468). Hence, it would have been obvious to a person of ordinary skill in the art to modify the feedback system described in Pace, by applying a linear time-invariant discrete feedback system, in light of the teachings of Phillips, in order to allow modeling of *digital* controllers that can accept information only at discrete values of time (see Phillips P. 469).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is 703-305-5490. The examiner can normally be reached on M-F 8:00 - 5:00.

Art Unit: 3713

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on 703-308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CS


Teresa Walberg
Supervisory Patent Examiner
Group 3700